



Planners | Surveyors | Biologists | Engineers

Project No.: **25-1019**

## STRUCTURE INSPECTION REPORT

**Structure Name:** Dean Lake Road Culvert **Date:** June 5<sup>th</sup>, 2025

**Owner's Name:** The Municipality of Huron Shores

**Inspector:** Tom Gregory, Senior Inspector

**Others in Party:** Carter Anderson, Engineering Technician; Mathew Tremelling, Engineering Technician

**Page No.:** 1 **of** 10 **Weather:** 15°C, Sunny

**TULLOCH**  
**On-Site Hours:** **Arrive:** 8:45am **Depart:** 9:45am

### General Description of Inspection Activity:

- Launched boat near culvert, from Dean Lake Road
- Visual inspection of culvert barrel from boat
- Water depth measured using levelling rod
- Barrel invert probed using steel "T" Bar

### Inspection Equipment:

- Boat (No Motor)
- Levelling Rod
- Steel "T" Bar
- Camera
- Underwater Camera (Live Feed Only)

### General Observations:

- Water depth: 1.4m
- Majority of culvert barrel has suffered shear failure causing the upper portion of the barrel to slip outside of the lower portion. Failure line is approximately four inches below water line.
- Aside from having slipped, top portion of culvert barrel appears structurally sound.
- 2m section of barrel on West end of culvert is in fair condition; the rest has failed.

- Middle section of barrel appears to have no bottom; only gravel could be “heard” when probing with the “T” bar.
- Since failure was evident, inspection of the culvert barrel using the underwater camera was not conducted.

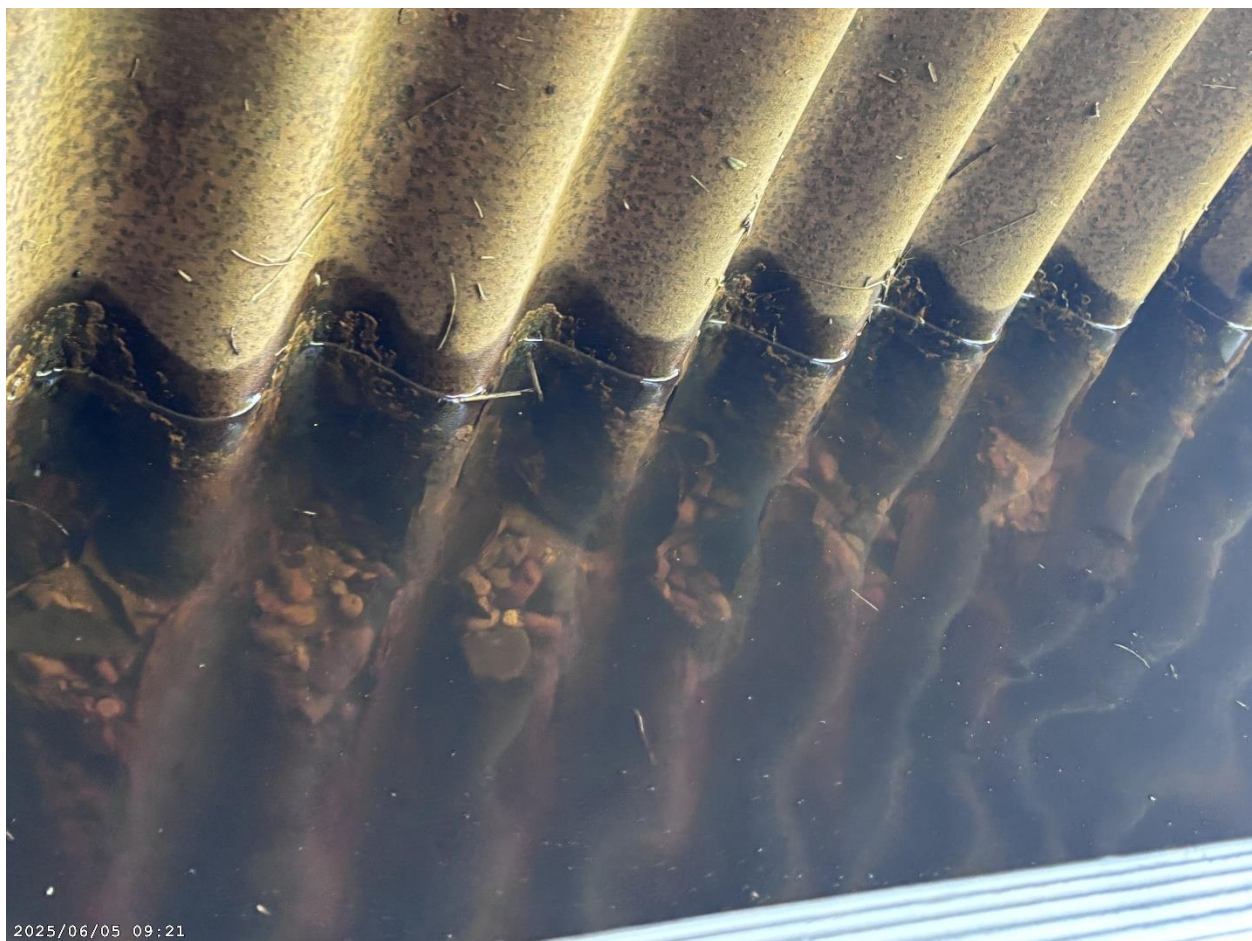
**Safety Issues and Action:**

- Sinkholes have formed in Dean Lake Road as a result of culvert failure.
- Dean Lake Road should remain closed.
- Replacement of culvert is recommended.

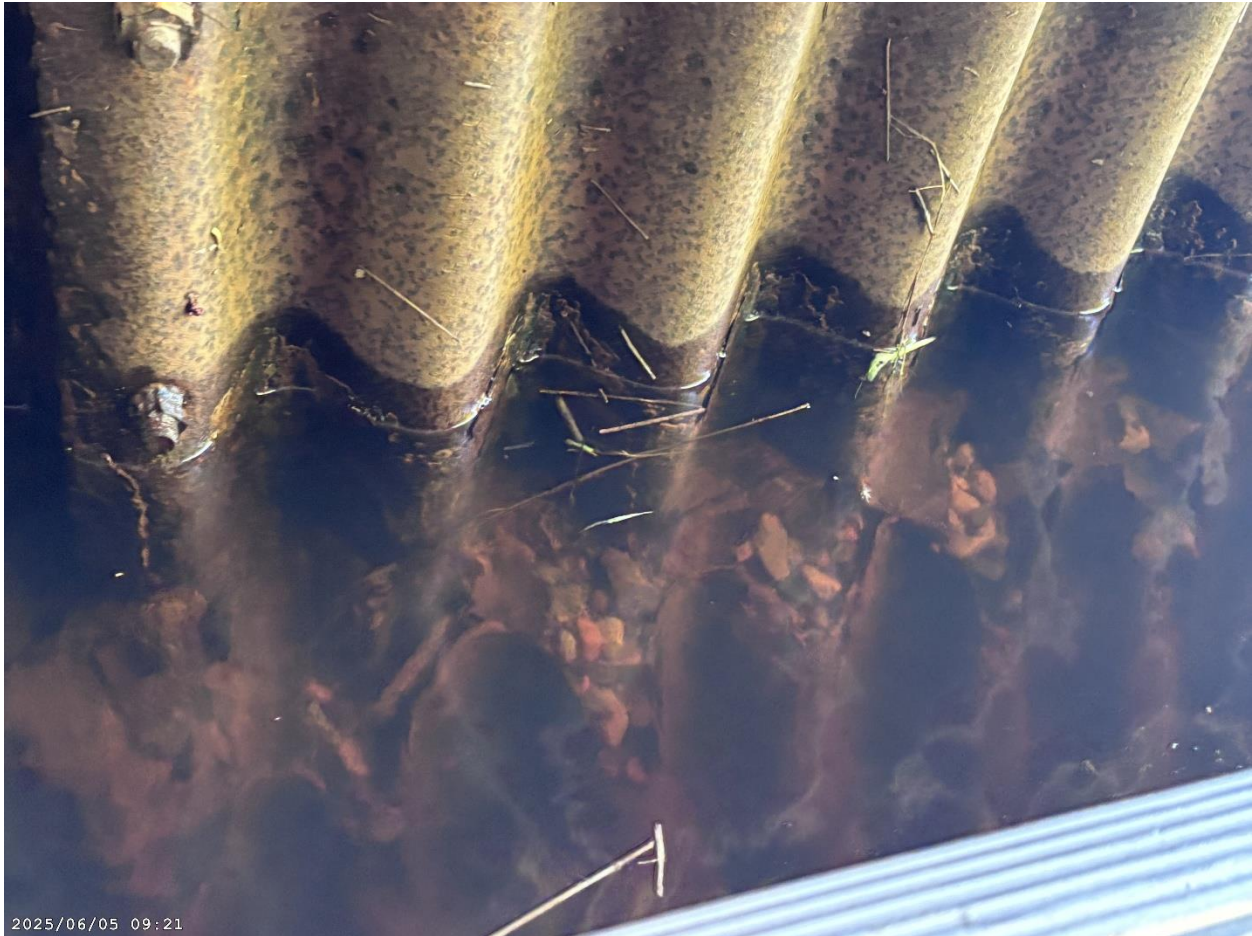
**Pictures:**

**Pictures Taken:**    ☒ **Yes**        ☐ **No**

**Picture Location:**    ☒ **Attached**    ☐ **File**



**Figure #1:** Separation of top and bottom portions of culvert barrel exposing gravel

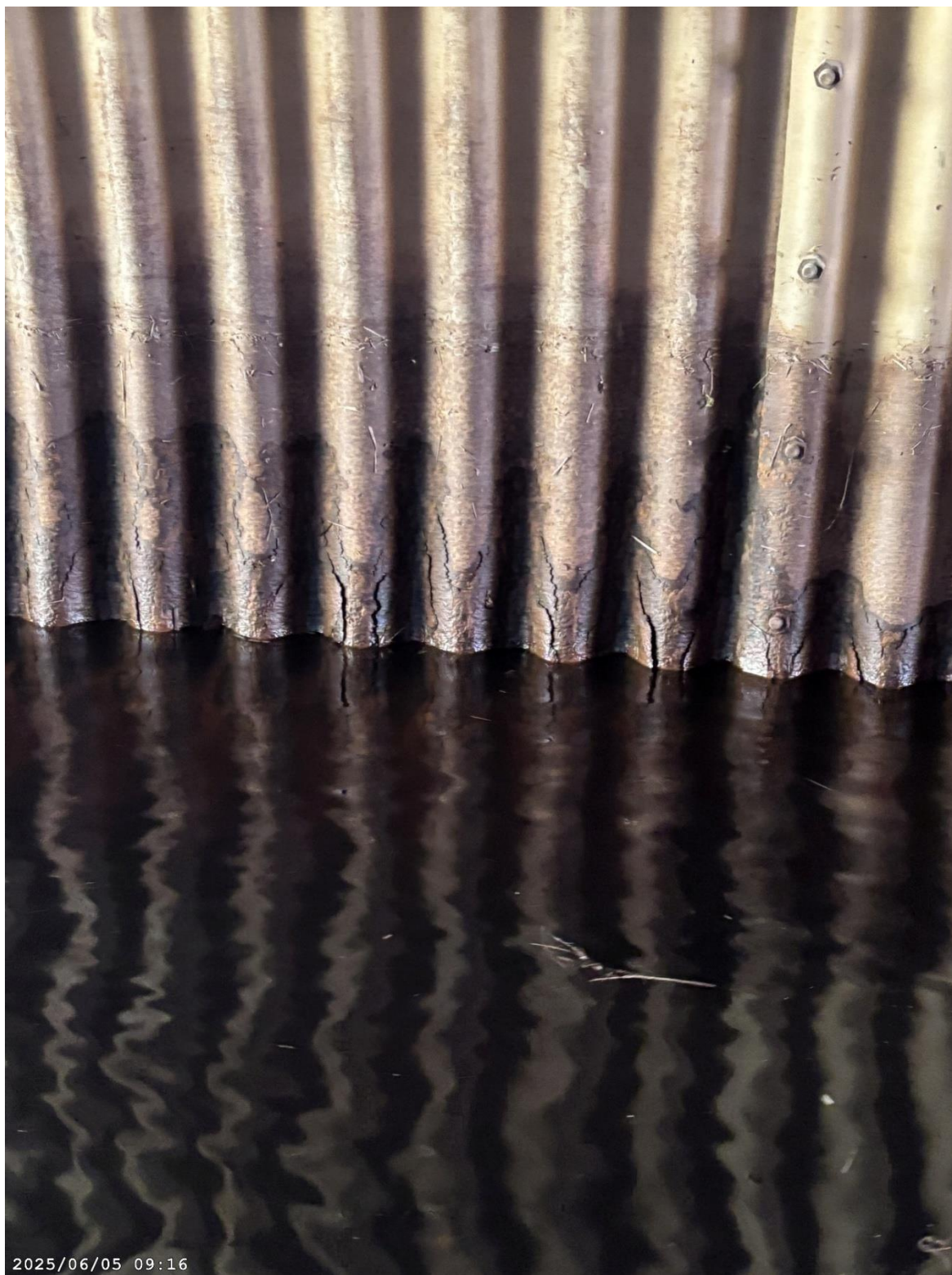


**Figure #2:** Close-up view of separation between top and bottom portions of culvert barrel





**Figure #3:** Localized severe flaking of culvert barrel



**Figure #4:** Flaking of culvert barrel at water line





**Figure #5:** Hole in culvert barrel at water line



**Figure #6:** Corrosion of culvert barrel above/below water line





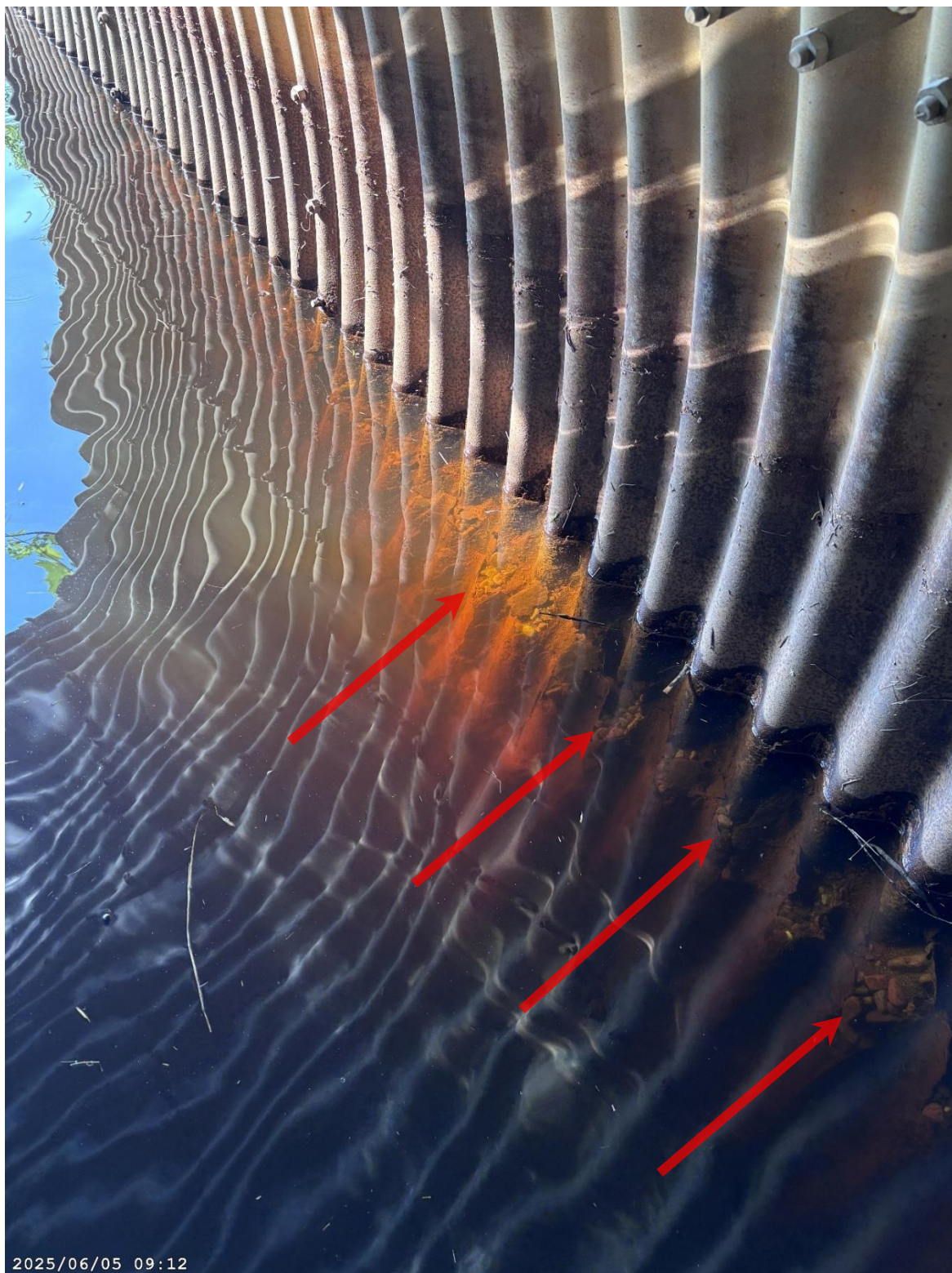
**Figure #7:** Looking West through culvert





**Figure #8:** Bulge in Northeast corner of culvert barrel





**Figure #9:** Shear failure line on South wall of culvert barrel with exposed gravel throughout

**End of Inspection Report**